

**ELDORADO NATIONAL FOREST
Amador Ranger District**

**Biological Evaluation and Assessment
For Terrestrial
Threatened, Endangered, and Sensitive Wildlife Species**

***Deer Valley 4wd Meadow Restoration and Blue Lakes Road
Maintenance Project***

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I. INTRODUCTION

Forest Service Manual (FSM) 2672.42 directs that a biological assessment (BA) be prepared for all proposed projects that may have effects upon United States Fish and Wildlife Service (USFWS) listed threatened, endangered, and proposed species. In addition, FSM 2670.32 directs that a biological evaluation (BE) be prepared to determine the effects of proposed projects on Forest Service Region 5 designated sensitive species. The purpose of these documents is to ensure that project decisions do not adversely affect species viability or create significant trends towards federal listing. This document will analyze the potential effects of the proposed project for terrestrial federally listed threatened, endangered, and proposed species, and Region 5 listed sensitive species.

Federally Listed Endangered (E) and Threatened (T) Species

A species list was obtained from the USFWS on January 13, 2015, identifying the following proposed, endangered, or threatened species as potentially occurring within the project area.

Table 1.0. Potential for project effects to terrestrial special status species that may occur on the Eldorado National Forest.

Species	Status	Species Habitat	Potential for Effects	
			Yes/No	No / Reason
Valley Elderberry Longhorn Beetle (<i>Desmocerus californicus dimorphus</i>)	FT	Elderberry plants > 1" at ground level within 100' of project. Below 3,000 feet elevation (USDI Fish and Wildlife Service 1999). Critical Habitat does not occur on the ENF.	No	Project does not occur within known or suspected species range.
Wolverine (<i>Gulo gulo</i>)	FSS/FP	Alpine and subalpine habitats within remote areas with low human use. Critical Habitat not proposed on the ENF.	No	Project does not affect suitable habitat.
Bald Eagle (<i>Haliaeetus leucocephalus</i>)	FSS	Habitats or areas identified in Draft Bald Eagle Management Plan (USDA Forest Service 1999b, 2001b).	No	Project does not affect suitable habitat; project occur more than 0.5 miles from a known nest and will not result in breeding disturbance.
California Spotted Owl (<i>Strix occidentalis occidentalis</i>)	FSS	Forested habitats. Areas adjacent to known sightings or Spotted Owl Habitat Areas, Protected Activity Centers, or individual activity centers (USDA Forest Service 2001a, 2001b)	No	Project does not affect suitable habitat, project is above know range of species on the Amador Ranger District.
Great Gray Owl (<i>Strix nebulosa</i>)	FSS	Large (>20 acres) meadows identified as providing potential habitat in the Range EIS project (USDA Forest Service 1999c)	Yes	
Northern Goshawk (<i>Accipiter gentilis</i>)	FSS	Forested habitats. Areas adjacent to known sightings or Goshawk Management Areas or Activity Centers. (USDA Forest Service 2001a, 2001b)	Yes	
Willow Flycatcher (<i>Empidonax traillii</i>)	FSS	Meadows with a willow component identified as providing potential habitat in the Range EIS project (USDA Forest Service 1999c)	No	Project does not affect suitable habitat.

Species	Status	Species Habitat	Potential for Effects	
			Yes/No	No / Reason
Pacific Fisher (<i>Martes pennanti</i>)	FSS/FP	Forested habitats below 8,500 feet elevation, with fairly dense canopies and large trees, snags, and down logs. Hardwoods may also serve as an important habitat component (USDA Forest Service 2001a, 2001b).	No	Project is above elevational range for this species. Project does not affect suitable habitat.
American Marten (<i>Martes Americana</i>)	FSS	Forested habitats above 5,500 feet elevation, with large diameter trees, snags, and down logs, moderate-to-high canopy closure, and an interspersed of riparian areas and meadows. (USDA Forest Service 2000)	Yes	
Fringed myotis	FSS	Roosts in crevices in rocks, cliffs, buildings, underground mines, caves, bridges, and in large, decadent trees. Most maternal roost sites documented in California have been found in buildings	No	Project does not affect suitable habitat.
Pallid Bat (<i>Antrozous pallidus</i>)	FSS	Rock crevices, tree hollows (particularly hardwoods), mines, caves and abandoned buildings below 6,000 feet elevation (Philpott 1997; Barbour and Davis 1969, USDA Forest Service 2001a, 2001b).	No	Project is outside elevational range for this species. Project does not affect suitable habitat for this species.
Townsend's Big-eared Bat (<i>Corynorhinus townsendii</i>)	FSS	Caves, mines or abandoned buildings and adjacent open, riparian and forest habitat to those features below 6,000 feet elevation (USDA Forest Service 2001a, 2001b).	No	Project is outside elevational range for this species. Project does not affect bat foraging habitat.
Western Bumble Bee (<i>Bombus occidentalis</i>)	FSS	Utilizes flowering plants in meadows and forested openings; abandoned rodent burrows are used for nest and hibernation sites for queens	Yes	
FE = Federal Endangered; FT = Federal Threatened; FP = Federal Proposed; FSS = Forest Service Sensitive				

The species that have a “No” in the first column under Potential For Effects, of Table 1.0 above would not be expected to have any direct, indirect, or cumulative impacts to the species or its habitats. No further analysis will occur for these species.

On January 13, 2015, the web site for the Sacramento Field Office of the U.S. Fish and Wildlife Service was reviewed for a list of threatened, endangered, and proposed species that may occur or be affected by activities within the Eldorado National Forest. This list of species is described the Introduction Section above, and has been evaluated to determine which species potentially occur within the Deer Valley 4wd Meadow Restoration and Blue Lakes Road Maintenance Project area or are potentially affected by activities within the project area.

II. CURRENT MANAGEMENT DIRECTION

The Sierra Nevada Forest Plan Amendment Final Supplement was approved and signed in January 2004. This document amends all Forest plans across the Sierra Nevada range. It also includes revised and new Forest-wide standards and guidelines for management of forest lands. Standards and guidelines from the LRMP and the Sierra Nevada Forest Plan Amendment Record of Decision (ROD) that are pertinent to this project have been summarized below for species potentially affected by the project.

Federally Listed Threatened, Endangered, Proposed and Candidate Species

Current Forest Species policy (FSM 2670) is to manage National Forest system lands so that the special protection measures provided under the Endangered Species Act are no longer necessary and threatened or endangered species will become de-listed. The LRMP for the Eldorado National Forest provides general direction for the management of threatened and endangered species. The LRMP directs that the Forest utilize administrative measures to protect and improve habitat for endangered species, and to prepare local management plans to meet recovery objectives. Additionally, the LRMP provides direction to maintain and enhance populations of threatened and endangered species.

Region 5 Listed Sensitive Species

Direction to maintain the viability of Region 5 sensitive species is provided by the National Forest Management Act, the Code of Federal Regulations (219.19), the Forest Service Manual (2672), and the Eldorado National Forest Land Management Plan (LRMP). The Sierra Nevada Forest Plan Amendment (SNFPA) Final Supplementary Environmental Impact Statement (SEIS) Record of Decision (USDA 2004) amends the Eldorado National Forest LRMP.

Forest Service Manual and Handbooks (FSM/H 2670) include the following:

- As part of the National Environmental Policy Act process, review programs and activities, through a biological evaluation to determine their potential effect on sensitive species.
- Avoid or minimize impacts to species whose viability has been identified as a concern.
- If impacts cannot be avoided, analyze the significance of potential adverse effects on the population or its habitat within the area of concern and on the species as a whole.
- Establish management objectives in cooperation with the States when a project on National Forest System lands may have a significant effect on sensitive species population numbers or distribution. Establish objectives for Federal candidate species in cooperation with the FWS and the States.

National Forest Management Act (NFMA), and implementing regulations (CFR 219.19)

- Fish and wildlife habitat shall be managed to maintain viable populations of existing native and desired non-native vertebrate species in the planning area.

Eldorado National Forest Land and Resource Management Plan (LRMP), as amended in January 2001 and January 2004.

- Utilize administrative measures to protect and improve endangered, threatened, rare, and sensitive wildlife species.
- General management directs to avoid or minimize impacts to species whose viability has been identified as a concern, and to manage fish and wildlife habitat to maintain viable populations of existing native and desired non-native vertebrate species in the planning area.

III. PROJECT DESCRIPTION

Alternative 1: Proposed Action

Deer Valley 4wd Trail: The proposed action would implement corrective actions to reduce resource impacts associated with the Deer Valley 4wd Trail at meadows 9N83-2 and 9N83-1 and to limit potential impacts to Yosemite toad from public motor vehicle travel after the trail is reopened. Proposed action items include:

- 1) **MVUM:** Add Deer Valley 4wd Trail (19E01) back to the MVUM. Adding the Deer Valley 4wd Trail to the MVUM is not contingent on the completion of the proposed corrective actions at Meadows 9N83-2 and 9N83-1 since evaluation has found the route to be consistent with Forest Plan Standard and Guideline 100.
- 2) **Forest Order:** A seasonal closure from January 1st to July 31st would be instituted for the portion of Deer Valley 4wd Trail currently closed under the Travel Management SEIS to limit impacts to Yosemite toads from public wheeled motor vehicle use. Closure signs and maps would be placed at both trailheads, Clover Valley, and the southern portion of the trail 0.25 miles north of the Eldorado and Stanislaus National Forest boundary alerting the public of the seasonal closure.
- 3) **Trail Reroute:** A short reroute (< 500 feet) of 19E01 on the west side of Deer Creek would be completed in order to move the trail away from areas of active stream bank erosion while improving the angle of approach to the existing stream crossing. The new trail segment would be located approximately 100 feet west of the existing trail and would require the removal of approximately 20 trees (5 trees >20 inch DBH) and stumps to clear a new trail corridor. Material generated from construction of the reroute (wood chips and logs) would be used to block dispersed areas, define a new trail, and apply mulch to the old trail corridor. The old roadbed would be planted with locally collected vegetation.
- 4) **Hardening crossing at Meadow 9N83-2:** Native rock and boulders from the trail or the Clover Valley sediment field would be imported to harden the approaches to Deer Creek using large cobbles and rock between 8-16" diameter. The stream crossing would also be delineated with boulders to limit the width of the crossing at both sides of Deer Creek.
- 5) **Stream Bank Restoration:** The proposed project would restore stream banks in Deer Valley (9N83-2) and Clover Valley (9N83-1) meadows impacted by past off-trail vehicle travel using revegetation methods such as seeding, willow cuttings, and transplanting sod plugs.

Blue Lakes/Meadow Lake Road: The proposed action for Blue Lakes/Meadow Lake Road consists of road maintenance activities to bring the road into compliance with S&G 100 while also limiting potential impacts to Yosemite toad from vehicle travel. Specific proposed action items include:

- 1) **MVUM:** Add Blue Lakes/Meadow Lake Road (9N01) back to the MVUM after corrective actions have occurred to restore hydrologic connectivity.
- 2) **Forest Order:** A seasonal closure from January 1st to July 31 would be instituted for the portion of Blue Lakes/Meadow Lake Road currently closed under the travel management SEIS to limit

impacts to Yosemite toad from public wheeled motor vehicle use. Seasonal closure signs would be placed west of Twin Lake closing approximately the last mile of the route to public motor vehicles.

- 3) **Road Maintenance:** Typical maintenance activities would include: maintaining/installing BMP's (catch basins at culverts, new culverts where needed and gravel on the steep sections of the roadway, repairing rolling dips), linear grading, and clearing out/ upgrading undersized culverts within the specified alignment and grade tolerances. Ground disturbance will be kept within approximately 25ft of road centerline. Blue Lakes/Meadow Lake Road (9N01) will be added to the MVUM once necessary corrective measures have been completed.

Alternative 2: No Action Alternative

Under this alternative, no work would be done on Meadow Lake Road and Deer Valley 4wd Trail, and the routes would not be reopened to public wheeled motor vehicle use.

Alternative 3: Modify Seasonal Closure

Alternative 3 would be similar to the proposed action except for the following: Alternative 3 would use a seasonal closure determined by snowmelt measured at Blue Lakes for the portion of the Deer Valley 4wd Trail and Meadow Lake Road currently closed under the Eldorado National Forest Travel Management SEIS. Under Alternative 3, the LOP would exclude motorized use of the Deer Valley 4wd Trail and Meadow Lake Road for 6 weeks after documented snowmelt (i.e. snow water content \leq 1.0 inch) as reported from the Blue Lake Snow Sensor Station. Six weeks would significantly reduce the risk of disturbance, injury, or mortality of adult Yosemite Toads while still providing recreation opportunities along the trail. In addition to posting closure signs and maps on Deer Valley 4wd trail and Meadow Lake Road, the Forest would post the status of the trail on the Eldorado National Forest website and the Amador District Office. In the event that the Blue Lakes snow sensor is not functioning, FS staff would attempt to verify snow condition at Blue Lakes and/or within the suitable habitat in the vicinity of the Deer Valley 4wd trail and Meadow Lake Road during the spring snowmelt to determine when the seasonal closure would be lifted from the trail. Based on past data from the Blue Lakes Snow Sensor Station (2005-2014), Deer Valley 4wd Trail and Meadow Lake Road would have opened between June 24 and August 20 under Alternative 3. Alternative 3 would also include installation of a gate west of Twin Lake on Meadow Lake Road.

Alternative 4: Extended Seasonal Closure

Alternative 4 would be similar to the proposed action except for the following: This Alternative would implement a seasonal closure from January 1 to August 15 along the portion of Deer Valley 4wd Trail and Meadow Lake Road currently closed under the Travel Management SEIS. This Alternative was added based on scoping comments that the seasonal closure needed to extend beyond July 31st to adequately protect Yosemite Toad along Deer Valley 4wd Trail and Meadow Lake Road. This alternative would also include installation of a gate west of Twin Lake on Meadow Lake Road to limit vehicle travel on the road during the seasonal closure.

Design Features

- The use of ground-based mechanized/motorized vehicles or equipment to implement the restoration activities would not occur during the proposed seasonal closures for routes 09E01 and 09N01 to limit impacts to Yosemite toad and Sierra Nevada Yellow Legged Frog.
- Restoration activities associated with Deer Creek and the unnamed perennial stream between Meadow Lake and Twin Lake would be completed during a period of low streamflow. This typically occurs in late summer and early fall. The project Hydrologist will be consulted before implementation of work to the Meadow Lakes Road (09N01) and the Deer Valley Trail to insure that streamflow is low enough for road maintenance and restoration activities to occur.
- Restoration activities associated with Deer Valley 4wd trail (09E01) and Meadow Lake Road (09N01) would be monitored for efficacy as outlined in the Eldorado National Forest Travel Management SEIS Settlement Agreement Monitoring plan (2015).
- All equipment would avoid traveling off the hardened road surface (i.e. outside of the route footprint) or crossing into aquatic habitat *to the extent possible* during restoration activities associated with the hardening of the approaches at route 09E01's stream crossing at Deer Creek (in meadow 9N83-2) and the culvert installation, repair, and maintenance on Route 09N01. Aquatic habitat includes the portion of route 09E01 that crosses directly through Deer Creek.
- Where equipment travels off the hardened road surface for restoration work, such as the reroute, these areas shall be surveyed for existing Yosemite toads just prior to starting work to avoid crushing. Yosemite toads and Sierra Nevada yellow-legged frogs by qualified FS personnel just prior to starting work to avoid crushing. If either SNYLF or YOTO are found within the area, their safety shall be assessed by qualified personnel and dealt with according to the Terms and Conditions described in USDI FWS 2014. Since Yosemite toads have been found to have site fidelity to burrows, extra attention will be given to identify existing burrows during the survey. Burrows will be avoided where possible.
- Fuels and other toxic materials will be stored outside of riparian conservation areas (per S&G 99) to limit the exposure of the listed species to the toxic materials.
- The use of low velocity water pumps and screening devices for pumps (per S&G 110) will be utilized during drafting for project treatments to preventing mortality of eggs, tadpoles, juveniles, and adult SNYLF and YOTO. A drafting box measuring 2 feet on all sides covered in a maximum of 0.25 inch screening is required.
- Should any TES species or watch list plant species be located associated with this project location district biology staff would be informed, and steps taken to evaluate, and mitigate any possible effects not covered by this assessment.

- A limited operating period (LOP) for northern goshawks (February 15 through September 15) would restrict restoration activities along a portion of the Deer Valley 4wd Trail that is located within ¼ mile of the goshawk nests, unless surveys confirm that goshawks are not nesting. The timing of the LOP would coincide with the hydrology design criteria for restoration activities taking place during a period of low stream flow.
- All off-road equipment would be cleaned to insure it is free of soil, seeds, vegetative matter or other debris that could contain seeds before entering the project area.
- Any straw or mulch used for erosion control would be certified weed-free. A certificate from the county of origin stating the material was inspected is required.
- Any revegetation material used for restoration or erosion control would be from a locally collected source.
- Infestations of noxious weeds that are discovered during project implementation would be documented and locations mapped. New sites would be reported to the Forest botanist.
- All gravel, fill, rock or other material would be weed free. Onsite sand, gravel, or rock would be used where possible.
- Known cultural resource sites will be flagged prior to work and avoided during implementation. There is to be no vehicle travel, vehicle or material staging, rock collection, or tree felling within the flagged areas.
- Should any previously unrecorded cultural resources be encountered during implementation of this project, all work should immediately cease in that area and the District Archaeologist be notified immediately. Work may resume after approval by the District Archaeologist; provided any recommended Standard Protection Measures are implemented.

EFFECTS OF THE PROPOSED PROJECT

No Action Alternative- Alternative 2 Effects Common to All Analyzed Species

The following describes the current condition, also known as the no action alternative. The no action alternative is used as the baseline to measure effects of the action alternatives, and as such is assumed to have no direct, indirect, or cumulative effects associated with it. This project area, the two roads/trails corridors and associated restoration activity areas have been highly altered from a natural condition by the use of these routes for many years. The routes themselves provide little to no suitable habitat for great gray owl, northern goshawk, and marten. Habitat for these species does exist adjacent to portions of the routes. The road and trail use by vehicles was analyzed in the Eldorado National Forest

Public Wheeled Motorized Travel Management EIS, 2008, and is only evaluated where altered by the projects proposed seasonal closure.

Great Gray Owl

No Action Alternative- Alternative 2- Current Condition

Suitable Habitat

The following describes the current condition, also known as the no action alternative. No project related, or other surveys have been conducted for this species in the project area. The great gray owl (GGO) is a Forest Service regionally designated sensitive species. The meadow areas in the project area may support great gray owls, but no detections have been made.

The current distribution and population of great gray owl is not well known, in recent years a number of breeding pairs have been found at relatively low elevations, in more of an oak/grass ridgetop and associated drainage systems.

Preferred great gray habitat is characterized mixed conifer habitat, with a combination of meadow and other vegetation opening utilized for foraging. Nests are usually in broken topped medium to large trees or snags which provide a protected platform. Hunting perches are used by the owls, 2-20' in height, within 220 feet from open vegetation edge used for hunting. The habitat surrounding the meadows in the project area is believed to currently provide the structure necessary for this species to utilize the area.

PACs

As this species has not been detected, or found to be reproductive within the project area no Protected Activity Centers (PACs) have been established within the project area.

Determination

The No Action Alternative is the existing condition, baseline, and as such is held to have no great gray owl affect/impact to great gray owls, or habitat and would not lead to a trend toward Federal listing or loss of species viability.

Alternative 1- Proposed Action

Direct and Indirect Effects

Suitable Habitat

Suitable habitat for great gray owl exists adjacent to both of the restoration activity areas on the Deer Valley trail. There does not appear to be any suitable habitat along the Meadow Lake road, no affects to habitat would be expected from the proposed work along this road for great gray owl. The restoration activities themselves would not adversely affect the habitat, as potential nesting trees would not be removed as part of the restoration. The reroute of less than 500 feet of 19E01, west side of Deer Creek, would require removal of some trees (estimated 5 trees > 20" dbh), but a field review of this site did not identify any of these trees having the size, and broken top cavity features used by the owl for nesting.

The foraging habitat within the meadows and open areas would not be adversely affected, and where the restoration work improves the meadow function, may benefit the species by increasing prey availability. The seasonal closure of the route for Yosemite toad protection would have no effect to habitat.

Disturbance Effects

As was previously stated, there are no PACs within the project area for this species. Disturbance effects would be limited to the activity related to the restoration activity, vehicle traffic, human voices, equipment use (chainsaws, etc...), and tree falling noise. As the species is not known to occupy the sites, and the activities are relatively small and isolated the potential for disturbance impacts is believed to be low. The LOP in the design criteria for goshawk, would further reduce the potential for nesting/reproductive disturbance from the restoration activities along the Deer Valley Trail, because these species have similar nesting/reproductive timing. For these reasons, the proposed action would not be expected to produce any potential for affects to reproduction. Should the species be present, individual, temporary displacement could occur, but for the reasons stated this is unlikely. The type of restoration work, and limited scope would make the work planned on the Meadow Lake Road, unlikely to result in reproductive disturbance effects, and if disturbance occurred only temporary displacement of individuals would be expected.

The seasonal closure for both Deer Valley Trail both reconstruction and trail use, and Meadow Lake Road, limited to reconstruction activities to limit impacts to Yosemite Toad, similar to what was described for the goshawk LOP above, would also reduce the potential for disturbance from trail use during the reproductive period for this species as the closure would take place during the nesting/reproductive season for this species.

Cumulative Effects

Past and future use of the area for recreation, has had, and will continue to have little impact on this species habitat. Past use of the area for cattle grazing, Indian Valley Allotment not currently active, and fire suppression have had impacts on the habitat, but would not be altered by this project. As no direct, or indirect adverse impacts would be anticipated from implementation this alternative, and the potential for improved foraging habitat condition is relatively small, this project would not affect the cumulative effects for this species to any discernable level.

Determination

The Proposed Action may affect/impact individual great gray owls but is not likely to result in trend toward Federal listing or loss of species viability.

Alternatives 3 and 4

Direct and Indirect Effects

Suitable Habitat

The effects to suitable habitat for these two action alternatives are the same as was described for the proposed action.

Disturbance Effects

Alternative 3 and 4 would have the same potential for disturbance as Alternative 1, the proposed action from project generated activities (restoration/reroute activities), as the same restoration/repair LOP would be in place under these alternatives.

Disturbance effects from the seasonal closures, both routes, proposed under these alternatives would be similar to what was described for the proposed action, and would also reduce the potential for disturbance from open trail use during the reproductive period for this species as the closures would take place during the nesting/reproductive season for this species.

In dry, low snow accumulation years Alternative 3 is less protective than the proposed action (Alternative 1) and in wet, high snow years Alternative 3 would be more protective than Alternative 1. Alternative 4, would be more likely to reduce potential disturbance than Alternative 1, although not in very dry years, and again could vary between being less, or more protective given the water year when compared to Alternative 3.

Cumulative Effects

Cumulative effects would be expected to be essentially the same for all action alternatives, and were described for the proposed action previously.

Determination

The Proposed Action may affect/impact individual great gray owls but are not likely to result in trend toward Federal listing or loss of species viability.

NORTHERN GOSHAWK

No Action Alternative- Alternative 2- Current Condition

The northern goshawk is designated as a sensitive species for the ENF. The most up-to-date and comprehensive information regarding the status and biology of northern goshawk is summarized in the SNFP FEIS and is incorporated by reference (USDA 2001b:Vol.3, Ch.3, part 4.4, pages 113-124). Northern goshawks occur in forested habitats throughout the northern hemisphere (USDA 2001b).

Goshawks utilize mixed conifer, ponderosa pine, red fir, subalpine conifer, lodgepole pine, montane riparian and montane hardwood vegetation types on the ENF. Suitable nesting habitat generally includes overstory trees greater than 24 inches dbh with a canopy closure greater than 60 percent on gentle north to east facing slopes. Keane (1999) found that in the Lake Tahoe region, goshawk nest sites had greater numbers of large live trees (greater than 40" dbh) and canopy cover (70 percent), and lower numbers of shrub/sapling cover and small live trees (less than 12 inches dbh) than in random plots in the area (Keane 1999 In USDA 2001b). Goshawks tend to build multiple nests within a given area, and may alternate between these sites from year to year. Habitat patches surrounding nest locations are known to

range from 25 to 250 acres in size, therefore, the SNFP recommended a 200-acre PAC around all known goshawk sites (Fowler 1988, Woodbridge and Detrich 1994, USDA 2001b). The northern goshawk breeding cycle extends from mid-February through mid-September on the ENF.

Suitable Habitat

Suitable habitat has been mapped for northern goshawk on the forest, based on California Wildlife Habitat Relations (CWHR) types 4M, 4D and 5D representing vegetation which is believed to provide suitable foraging and nesting habitat. Key habitat is designated as northern goshawk protected activity centers (PACs) which include the best 200 acres of suitable habitat surrounding a known goshawk activity centers, and habitat with highest nesting habitat capability (CWHR type 5D). No protocol project specific surveys were conducted for this project, but during field reviews of the Deer Valley trail, a goshawk exhibiting reproductive behavior was detected on multiple occasions by field crews accessing 9N83-2. As was previously stated the Deer Valley Trail, and Meadow Lake Road do not provide suitable habitat, but there is habitat immediately adjacent to both of the road/trails. The reroute area of the Deer Valley Trail is within suitable habitat for northern goshawk. The remaining restoration areas do not presently provide suitable habitat for this species.

PACs

There is one goshawk Protected Activity Centers (PAC) PAC G33-02, which was delineated as a result of the detections during field reviews of the project area, based on species detections and reproductive behavior. This PAC straddles the Deer Valley Trail, and is between the areas planned for restoration work. Previous to these detections there was one siting in 1993 along the Meadow Lake Road, but nesting/reproductive status was not determined, and no PAC was generated based on this siting.

Determination

The No Action Alternative is the existing condition, baseline, and as such is held to have no affect/impact to northern goshawks, or habitat and would not lead to a trend toward Federal listing or loss of species viability.

Alternative 1- Proposed Action

Direct and Indirect Effects

Suitable Habitat

As described for the no action alternative, the short <500 foot reroute of a portion of the Deer Valley trail is within habitat that is suitable, and may be used by northern goshawk. There does not appear to be any suitable habitat which would be directly affected by proposed actions along the Meadow Lake road, no affects to habitat would be expected from the proposed work along this road for northern goshawk. The remaining suitable habitat adjacent to both routes, Deer Valley Trail and Meadow Lake Road, would not be affected by this alternative. During field review of this location and planning for the project the species was not detected in this area, and the area appeared to be more likely to be used for foraging habitat than for nesting based on tree size and stand makeup. The reroute project would

remove a small number of trees, approximately 5 of which are over 20" dbh, and increase the fragmentation of suitable habitat to a limited degree. Both the loss/degradation along the reroute, due to tree removal and clearing, would be very limited in scope as < 2 acres would be affected by the reroute.

PACs and Disturbance Effects

The restoration work at the Clover Valley crossing is over 1/2 mile from the activity center, and the restoration work/reroute at other site in Deer Valley is over 1/4 mile from the activity center for goshawk PAC G33-02. The distance between the planned restoration/reroute activities on the Deer Valley portion of the project, from the sightings and activity center, and the added protection of the LOP make the potential for disturbance to nesting goshawk from the proposed activities extremely unlikely, and even if they were to occur, reproduction would not be expected to be affected.

The seasonal closure for Yosemite Toad protection during reconstruction on Meadow Lake Road would reduce the potential for nesting/individual disturbance to goshawk, should they be present, as the closure overlaps the nesting season. As no known nests have been located along this route disturbance would be expected to potentially result in temporary displacement of individuals, but would not be expected to impact reproduction.

Road and trail vehicle use was analyzed for in the the Eldorado National Forest Public Wheeled Motorized Travel Management EIS, 2008, and found to potentially result in disturbance effects to this species. The seasonal closure for aquatic species would also reduce the potential for disturbance from trail use during the reproductive period for this species, both Deer Valley and Meadow Lake routes, as the proposed seasonal closure would take place during the nesting/reproductive season for northern goshawk.

Cumulative Effects

Past and future use of the area for recreation, has had, and will continue to have little impact on this species habitat. Past cattle grazing and fire suppression have had impacts on the habitat, but would not be altered by this project. As the project would affect less than 2 acres of suitable habitat for this species, and with the LOP in place, and distance from activities to the activity center for the one PAC, little to no direct or indirect effect to this species would occur from implementation of this alternative. For this reason, no noticeable addition to cumulative effects for this species would occur as a result of implementing this alternative.

Determination

The Proposed Action may affect/impact individual northern goshawks but is not likely to result in trend toward Federal listing or loss of species viability.

Alternatives 3 and 4

Direct and Indirect Effects

Suitable Habitat

The effects to suitable habitat for these two action alternatives are the same as was described for the proposed action.

Disturbance Effects

Alternative 3 and 4 would have the same potential for disturbance as Alternative 1, from project generated activities (restoration/reroute activities), as the same restoration/repair LOP/seasonal closures would be in place for the Deer Valley trail, and a seasonal closure (Yosemite toad) for the reconstruction activities which would result in similar reductions in potential for disturbance for the Meadow Lake road under these alternatives as was discussed for Alternative 1.

Disturbance effects from the seasonal closures proposed under these alternatives would be similar to what was described for the proposed action, and would also reduce the potential for disturbance from open trail use during the reproductive period for this species as the closures would take place during the nesting/reproductive season for this species.

The later into the summer the closure lasts, the lower the potential for disturbance to occur for this species. In dry, low snow accumulation years Alternative 3 is less protective than the proposed action (Alternative 1), and in wet, high snow years Alternative 3 would be more protective than Alternative 1. Alternative 4, would be more likely to reduce potential disturbance than Alternative 1, although not in very dry years, and again could vary between being less, or more protective given the water year when compared to Alternative 3.

Cumulative Effects

Cumulative effects would be expected to be essentially the same for all action alternatives, and were described for the proposed action previously.

Determination

The Proposed Action may affect/impact individual northern goshawk but are not likely to result in trend toward Federal listing or loss of species viability.

AMERICAN MARTEN

No Action Alternative- Alternative 2- Current Condition

The following describes the current condition, also known as the no action alternative. The American marten is a Forest Service regionally designated sensitive species. Based on incidental sightings, and track plate/camera surveys marten appear to be well distributed above 5,500 feet in elevation on the Eldorado National Forest.

Preferred marten habitat is characterized by dense (60 to 100% canopy), multi storied, multi species late seral coniferous forests with a high number of large (> 24 inch dbh) snags and downed logs (Freel 1991). These areas are often in close proximity to both dense riparian corridors (used as travel ways),

and include an interspersed of small (<1 acre) openings with good ground cover (used for foraging). Forest stands dominated by Jeffrey pine did not appear to support marten on the Tahoe National Forest (Martin 1987).

Determination

The No Action Alternative is the existing condition, baseline, and as such is held to have no affect/impact to marten, or habitat and would not lead to a trend toward Federal listing or loss of species viability.

Alternative 1, 3 and 4- Action Alternatives

Direct Effects and Indirect Effects

Suitable Habitat

Marten have been detected in the general area of the project, no project related or species specific surveys have been completed in the project area. Due to the recreational use of the area, foraging activity may be occurring, but the both routes would be expected to be avoided for reproduction. No denning sites have been detected. The effects to suitable habitat for all action alternatives for this species would be essentially the same as those described for the goshawk. The reroute project would remove a small number of trees, approximately 5 of which are over 20" dbh, and increase the fragmentation of suitable habitat to a limited degree. Both the loss/degradation along the reroute, due to tree removal and clearing, would be very limited in scope as < 2 acres would be affected by the reroute.

Disturbance Effects

Alternatives 1, 3 and 4 would have the same potential for disturbance from project generated activities (restoration/reroute activities), as the same restoration/repair LOP would be in place under these alternatives, and would reduce potential for foraging individuals to be affected.

The seasonal closures proposed under these alternatives would be similar to what was described for the great gray owl and northern goshawk, and would also reduce the potential for disturbance from road/trail use during the reproductive period for this species as the closures would take place during the reproductive season for this species. The later into the summer the closure lasts, the lower the potential for disturbance to occur for this species.

Alternative 1, 3 and 4 would have the same potential for disturbance to marten from project generated activities (restoration/reroute activities), as the same restoration/repair LOP/Seasonal Closures would be in place for the Deer Valley trail, and the Meadow Lake road under these alternatives. As no denning is not expected to occur along the routes, would disturbance could potentially result in temporary displacement of individuals, but there would be no expected to impact reproduction from these activities.

Disturbance effects from the seasonal closures proposed under these alternatives would be similar to what was described for the goshawk, and would also reduce the potential for disturbance to foraging individuals, during their reproductive season.

Cumulative Effects

Past and future use of the area for recreation, has had, and will continue to have little impact on this species habitat, cattle grazing and fire suppression have had impacts on the habitat, but would not be altered by this project. As the project would affect less than 2 acres of suitable habitat for this species, and with the LOP in place, little to no direct or indirect effect to this species would occur from implementation of alternatives 1, 3 or 4. For this reason, no noticeable addition to cumulative effects for this species would occur as a result of implementing any of the action alternatives.

Determination

Alternatives 1, 3 and 4 may affect individual marten, but are not likely to lead to a trend towards federal listing or loss of viability for the American marten.

WESTERN BUMBLE BEE

No Action Alternative- Alternative 2- Current Condition

No surveys have been conducted for this species within the project area, and if present their numbers are likely low. Western bumble bees are associated with a variety of habitats; they forage on flowering plants and use rodent boroughs for nesting and overwintering. Early seral habitat with flowering plants may provide habitat for both nest/overwintering and foraging, with later seral, high canopy closure habitat expected to provide some boroughs for nesting/wintering, but little foraging opportunities. The project area is a mix of these habitat types, with the meadows providing some of the highest quality foraging habitat.

Determination

The No Action Alternative is the existing condition, baseline, and as such is held to have no affect/impact to western bumble bee, or habitat and would not lead to a trend toward Federal listing or loss of species viability.

Alternatives 1, 3 and 4: Action Alternatives

Suitable Habitat

The majority of the project (Deer Valley 4wd trail and Meadow Lake Road), would have little impact on western bumble bee habitat. The effects to suitable habitat for the three action alternatives would be to improve the habitat at the creek crossings. The hardening and vegetation improvement work should improve the potential for flowering plants, and foraging opportunities for the bee. The area affected is relatively small, so the habitat improvement is unlikely to have very much of an impact on either the

individuals bees, should the bee be present, or local population of western bumble bee. The remaining work, including the reroute would be unlikely to have any impact on either the bee or its habitat.

Disturbance Effects

Should the bee be present at the locations of the hardening/vegetation improvement work, Deer Valley trail, at the crossings, individuals could be displaced. This is unlikely due to the low likelihood of species presence, short duration of the project, and amount of habitat available outside of the areas planned for project activities. Should the displacement take place the effects would be short term, and not expected to greatly affect individuals, or the local population. Nesting sites would not be expected to be affected by any of the project activities. The road maintenance activities planned for the Meadow Lake project would not be anticipated to result in disturbance effects to this species.

The LOP, and seasonal closures proposed under these alternatives would not be expected to have any detectable effect on this species.

Cumulative Effects

Past activities described for other species previously have had some adverse effects to bumble bee habitat. As the project would have no adverse impacts to the species, and may have only slight positive impacts to habitat, no change in the existing cumulative effects for this species would result from any of the action alternatives.

Determination

Alternatives 1, 3 and 4, the action alternatives, may affect individuals, but are not likely to lead to a trend towards federal listing or loss of viability for the western bumble bee.

IV. Summary of Determinations

The action alternatives (Alternatives 1, 3 and 4) will have no effect/impact on the following species:

Valley elderberry longhorn beetle
American Bald eagle
California spotted owl
Willow flycatcher
California wolverine
Pacific Fisher
Townsend's big-eared bat
Pallid bat
Fringed myotis

The action alternatives (Alternatives 1, 3 and 4) may affect/impact individuals but are not likely to result in a trend toward Federal listing or loss of viability for the following species:

Great gray owl
Northern goshawk
American marten
Western bumble bee

V. Recommendations

Should any TES species be located prior to, or during implementation, the District Biologist should be notified and appropriate action taken to minimize effects of project activities on TES species.